

If the photoconductive layer 18 is thickened, it is necessary to increase a bias voltage. Since a withstand voltage of a TFT is higher than that of a MOS, when a scanning circuit is formed of a TFT, it is possible to more thicken a thickness of the photoconductive layer 18, and to increase an conversion efficiency from X-ray into light so much. Further, the TFT is more suitable for a large area X-ray image than a crystal Si scanning circuit.

Further, although the method of forming the secondary electrode 17B on the photoconductive layer has been described in the above, it is possible to use, for example, single crystal of $\text{Bi}_{12}\text{GeO}_{20}$ as the photoconductive layer and constitute the scanning circuit on the single crystal using a thin film technique. When such manufacturing method is used, the TFT can be made more easily than the MOS.

[Fig. 2]

21: NONCRYSTALLINE SILICON

22: SOURCE

23: GATE

24: DRAIN

26: INSULATING LAYER